THE

LOUISVILLE MEDICAL NEWS.

"NEC TENUI PENNÂ."

SATURDAY, DECEMBER 12, 1885.

Original.

SOME REMARKS ON THE ETIOLOGY OF FEVER AND AGUE.

BY RUFUS W. GRISWOLD, M. D.

The cause or causes of intermittent fever and the allied so-called malarial diseases have been matters of conjecture and discussion with medical men for ages. Theories almost beyond number have been from time to time advanced upon the subject, and experiments in diverse directions instituted to discover the potential factor of the diseases supposed to have a common origin with ague and fever; medical minds have been often deluded into the reception of vanishing phantoms as veritable realities in relation thereto; opinions, some of them ingenious and many amusing, have been put in type on the subject, not one of which has proved satisfactory to the critical mind, or has stood the test of logical examination under the light of the phenomena which the trouble from time to time and in varying places exhibits. The conclusions drawn from manifestations at one point and in one season are contradicted and overthrown by the manifestations exhibited in some other place at the next season. The conditions supposed to originate ague at one place are alike present at numberless other places where the disease does not manifest itself; surroundings apparently equally capable of pestiferous action seem abundantly successful in one case and totally powerless in another; regions which have not known an indigenous case of ague in generations suddenly become ferociously attacked, and without any change in the locality; and without any change in the locality the trouble as unaccountably disappears as it unaccountably came. All this not only confuses, but deludes; it also establishes the uncertainty. In the uncertainty the mind amuses itself with new conjectures, and humbugs itself with its amusement.

In the entire history of malarial troubles no corner of the world has afforded the cautious critic more forcible illustrations of the position above presented than has been given for the twenty-five years last past by Southern and Southwestern New England. Every theory advanced on the subject of cause has been undermined by the diffusion and progress of the existing epidemic over Connecticut and into Massachusetts and Rhode Island. It is not my intention to undertake here a description of this diffusion and progress, for the purpose of establishing my point, the limit of the present intention would forbid that; beside, I have quite fully gone over the ground in another place (See Gaillard's Medical Journal for August and November of this year), and shall still more fully go over it in the next annual report of the Connecticut State Board of Health. My present purpose is to criticise a special theory, or rather a special point in defense of a special theory, the past spring put in type by Dr. Willard Henry Morse, of New York, in the Louisville Medical News issues of April 18th and May 2d and 9th.

The theory advanced by the doctor was, or is, that intermittent fever is caused by a special gas which he calls methane, generated in the mud of rivers and ponds, and thence evolved and diffused abroad. The theory is essentially the old one of marsh miasm dubbed with a new name. Whether or no it is the result of that old exploded causative malarial trinity of Lancisi, heat, moisture, and vegetation to decay, does not for my present purpose matter. I do not propose to attack directly either the theory or the gas, but rather to show that the illustrative argument by which the doctor endeavors to establish his points is fragilely false and radically rotten; that his assumptions are without sufficient support, decep-

tive, and fallacious. The father of a new theory is rationally bound to advance some evidence, if not proofs, of its verity; when what he presents as evidence is not true, the supposed evidence is itself destructive of the hypothesis put forward. I quote from the doctor (NEWS of May 9th, page 290):

"Chemistry does not understand the primal formation of methane. We know that it is generated, but we see no bound to the process. The mud where it is born is filled with it to repletion; it is literally compressed there. If some particles escape, others take their place, and a body of fresh water is always fertile of it. But how are we to explain the presence of malaria in a locality where it has not been known for a century or longer? Take the Connecticut River valley as an example. There, as we have seen, malaria has recently reappeared after an interval of nearly a century. It was once there and has returned; wherever it appears it has appeared before. The reason is very easily understood. Question the old residents of the valley, as I have taken pains to do, and they will tell you that the river was more sandy, because it was more swift, ten or twenty years ago. The numerous reservoirs have formed mud below and above them, and in the mud methane has grown. To prove this let me say that the most malarious place on the river is one where a rank growth of water-weeds flourish, and up the river, on the Vermont boundary, where the stream runs over a pebbled bed, there is no malaria, never was, and never will be. There are, it is true, muddy rivers like the Thames that are not prolific of malaria; and this is explainable either by neutralization from some more abundant or more powerful gas, or more probably by the mud being possessed of a certain acridity that prevents the generation of the methane; but, referring again to the Connecticut, it may be asked, how are we to explain the presence of malaria a century or more ago, when the locality was but recently settled, and there were no reservoirs to dam up the waters and make mud? If we think a moment it will be apparent that a newly settled country, where the woods are heavy, and vegetation is rank, would have muddy bedded rivers. This is invariably the case."

Now I have been living, with the exception of part of the time from 1850 to 1854, for sixty years in the center of the lower Connecticut River valley. For fifty years, certainly, I have had a thorough acquaintance with the diseases of the section, and for over thirty of these I have practiced medicine in the same locality. I am in a position to state from knowledge what is not true—what is simply assumption—in what is above quoted. It is not true that wherever malaria has appeared in the Connecticut valley region in the present epidemic, it had appeared before. On the contrary, there are any amount of localities where intermittent has been very rife the last thirteen years, in which a case was never before heard of since the English first settled in the valley. Say a hundred years ago there were a few cases in a few spots; for the last fifteen years in the lower part of the valley, and for the last ten in the upper part on the State line at the north, every township, every neighborhood, nearly every school district, about every brook, valley, and about every hilltop has shown a number of cases of intermittent or some other form of so-called malarial disease. Whereas, up to, say 1870, there had not been, so far as is known, among the people residing on the Connecticut and its tributaries, from the Sound to the Massachusetts line, three cases of indigenous intermittent fever, or any thing the like, per year, for the seventy-five, or the hundred, or the two hundred years previous. In the last fifteen years there have been forty to fifty thousand cases or more, among the two hundred thousand people. In some places nearly, in some quite, half the population have been afflicted in a single season. Now, as for the reason for the difference, the doctor tells us it is "easily understood." On the ground I have the presumption to say that it is not understood at all. The doctors right here not only don't know, but they don't pretend to know about it. The matter about which some physician somewhere else knows the whole we are here quite ignorant of, and we admit our ignorance. To those members of the profession connected with our health boards, whose opportunities for investigation are backed by the funds of the State or cities, the potency of ague and fever remains a mystery; in their reports they make the admission. And the reason which the doctor gives as so "easily understood," to wit, that the "river was more sandy because it was more swift ten or fifteen years ago," is simply bosh. There is no such change of condition in "numerous reservoirs," in the last fifteen years as the doctor implies; neither is it true, as he asserts to prove a position, that "the most malarious place on the river is where a

rank growth of water weeds flourish." The possibly most malarious place that I know of in the seventy miles from the sound to the north line of the State has a clean, sandy bank on the river front, though, as for a choice of places, as regards the prevalence of ague, there are a hundred at any one of which if you were living you might regret that you did'nt reside in either one of the other ninety-nine. Neither is it true that on the Vermont boundary there "never will be any ague;" for of late the same potency that has for the last dozen years afflicted the people of the lower valley has made itself felt every year farther and farther north, extending over the Massachusetts line into Vermont and New Hampshire, and so far up along the Atlantic coast as Portsmouth in the latter State, with an occasional case appearing even so much farther north as the vicinity of Biddeford and Saco, in Maine—all of which is in contradiction of the old supposed laws of malarial presence.

Again, it is simply pure fallacy that is contained in the doctor's observations about the Thames. Considering its drainage into the sound, the State of Connecticut may be divided into four regions: (1) The Housatonic and the Naugatuc at the west; (2) the Quinipiac at the west center; (3) the Connecticut at the center; (4) the Thames at the east. The downflow and the exit of these systems of drainage are on the same parallels of latitude; they all empty into Long Island Sound. Now, what is either not known to outsiders, or is not recognized by them in their illustrations from Connecticut soil of the phenomena of ague appearance in the State is, that the present epidemic of the disease began on the Sound shore in the Housatonic region, in the southwest part of the State, about 1860; that it got into the lower part of the Quinipiac in the next two or three years—the distance being but a few miles; that it did not begin in the Connecticut region, thirty miles further east, until 1870 and '72, and that it was still another ten years in reaching twenty miles more in the same direction into the valley of the Thames. At the same time of this eastern progress, the trouble was extending over about the same distances across the State to the north, and to the northeast toward Massachusetts, and got into that State only after about eighteen years after its extensive prevalence in the southwest corner of Connecticut.

Now, assuming the doctor's "methane" to be the potential factor, we shall have to conclude that up to about 1860 the mud of the Housatonic could not produce the article; that after that date it began to generate any quantity of it; that the Quinipiac could not show up at all until, say about 1865, and that then it developed unlimited amounts; that the Connecticut was utterly powerless until 1870, and was then astonishingly prolific, and that the Thames was imbecile until 1880, after which it also became abundantly fruitful—and these, it is to be remembered, are all on the same latitude—such a conclusion is indefensible, illogical, without basis, and devoid of any evidence whatever. The assumption of the doctor is pure absurdity. I assert that there has been no such change in the Connecticut River or in its bottom, or in its mud, or in the reservoirs on it, or in any way as has made it possible to generate the suppositious methane of the doctor, in every year for the past fifteen years, after having been utterly imbecile for the production of such a gas for every year in the hundred preceding ones.

The statement of the "old residents of the valley" that "the river was more sandy, because it was more swift ten or twenty years ago," is all idle talk. There is nothing to interrupt the current of the Connecticut River from the Massachusetts line to the Sound that had not existed for the fifty years before the invasion of ague; there is nothing to interrupt it anyhow. Its current for the past twelve years, in every one of which intermittent has prevailed, is just as good as it was in the fifty years before that, in which there was not an average of one case the year in the whole valley. The bed of the stream has harbored no more mud in the last dozen years than it had in the dozen other dozens of years when a case of intermittent along it was as rare as a white crow in Paradise. As for the Thames, as a matter of fact, for the first few miles above New London harbor, its bed is quite as muddy as is that of the Connecticut, but that it has been neutralized by some "more powerful gas" than the doctor's methane, or by a "certain acridity," there is no evidence whatever. The supposition is a mere invention, put forward as a plausible but entirely gratuitous reason to account for the fact that at the time the doctor got his postings ague had not put in its appearance in that section. Since then the disease has come in there, as well as further east, over nearly all the adjoining State of Rhode Island. Are we to suppose

here that the methane has finally got the upper hand there, twenty years later than it did fifty miles to the west? It is all idle supposition.

It is hardly necessary to go further in exposing the fallacies of this assumed basis for the methane theory. When the reasons given are grounded on false premises, the deductions tumble. The chief argument for the support of Dr. Morse's discovery is drawn from the present invasion of ague into Central Connecticut, but the points he has endeavored to make there are all wrong, and the conclusions fail. The facts are that fever and ague began to be prevalent in the southwest corner of Connecticut about twenty-five years ago; from thence it began spreading to the north, northeast, and east, with an erratic but gradually increasing front, slowly but surely advancing year by year, with a systematic and well-defined progress up to the present time, covering in Connecticut, extending over all Western Massachusetts to the north, to the northeast into Central Massachusetts, half way from the Connecticut River to Boston, and to the east and nearly over all Rhode Island. The causes that underlie this invasion are not known. Its history contradicts all the theories of malarial etiology that have been offered. After noting the progress of the trouble for six or eight years, and observing the opposite conditions under which its phenomena were manifested, I had the temerity to say in the Philadelphia Clinical News of January 8, 1881, on noticing that the Health Board of Massachusetts proposed to investigate the cause of the trouble in the southwest part of that State: "The Board of Health, which proposes to look after the causes of ague and fever in the southwestern corner of Massachusetts, will, unless it is different from any other health board ever heard of, discover, or believe it discovers, the potentiality of the disease. It must report; and after it has reported we shall know all that we now know about it, and nothing more." For that utterance I was taken to task as a skeptic in malarial etiology. But to-day, in all this New England section, that utterance stands true, and confessedly true by the published evidence of even those investigators who started in pursuit of their own theoretical phantoms. I wish to repeat here in substance what I have before put in type: The potential factor of intermittent fever—the essential essence, the necessary force—without which other conditions are powerless for the generation of the disease is an ungrasped and an unknown quantity. The man who starts in the pursuit of his own preconceived theory in relation to it finds himself following a will-a-wisp that disappears in the fog of his erroneous assumption, and so returns empty from the chase.

ROCKY HILL, CONNECTICUT.

Miscellany.

DIABETES MELLITUS SUCCESSFULLY TREATED WITH BORACIC ACID.—F. A. Monckton reports, in the Australasian Medical Gazette, a case of diabetes mellitus cured by the use of this drug. He says, while pointing out that the value of boracic acid as a diabetic remedy has only been proved in this one case, let me earnestly beg that those who have an opportunity of watching its effect will try it. When placed on the boracic acid the patient's urine had a specific gravity of 1.025. Seven grains of the acid were given three times a day, and at the end of ten weeks the specific gravity was 1.016; no sugar. He continues the drug, however, as it produces no unpleasant effects. No stringent dietary regulations were observed in this case.

"WEALLY, ah, I beg your pardon, miss, if I intrude," said a dude from Cincinnati, the other evening, on discovering a pretty girl milking a cow.

"No intrusion, sir," said the girl, blushing like a rose.

"Ah, my dear damsel, cawn't I assist you?"

"Certainly, sir; just stand where the cow can see you."

"Of course I will, me chawmer; but what do you want the cow to see me foah?"

"She will think you're a calf, and give down her milk faster."

CESAREAN SECTION AFTER DEATH OF THE MOTHER.—Dr. J. M. Hays, of Oxford, N. C., reports a case of this kind in the North Carolina Medical Journal. As soon as he satisfied himself that the mother was dead, he quickly opened the abdomen and removed a living child from the uterus; the child was eight and a half months old, and bids fair to live.

THE cost of the Montreal smallpox epidemic, it is said, will reach $5,000,000.

PREVENTION OF LACERATION OF THE PERINEUM IN PRIMIPARÆ.—Dr. P. Gaussen, in the British Medical Journal, recommends the following method to be followed in order that this accident be avoided: As the fetal head, with each successive pain, gradually dilates the perineum and the osteum vaginæ, the fore and middle fingers of the right hand should be passed up behind the pubes during a pain as high as possible; and, having grasped the occiput, if possible, being inserted in some suture, should be retained there till the pain subsides, and as the head recedes in consequence, the movement of flexion is greatly aided. Then, during the few pains which immediately precede the birth of the head, the occiput should be grasped in the hollow of the right hand, and pulled down from behind the pubes, while the frontal part of the vertex should be pushed in an upward and backward direction toward the sacrum with the thumb of the same hand. This being accomplished, flexion is complete, and the termination of the case may be left to nature. With the above I combine lubrication of the parts and the prolongation of the second stage, as far as the limits of safety to the mother and child will permit.

POISONING FROM TINCTURE OF BRYONIA. C. Dixson, M.D., reports, in the Australasian Medical Gazette, a case of poisoning by eighty minims of the homeopathic tincture of bryonia. He says the symptoms were very much like poisoning from veratrum viride, and were treated by stimulants, as ammonia, nitrite of amyl, coffee, etc., with heat to the extremities.

THE OPERATION OF TURNING.—The Medical World says that when you can not find the feet of the child, in the operation of turning, reach for the fundus of the uterus, and when there open the hand widely and withdraw it slightly. The feet will then come into the hand of the operator, the knee-chest position will sometimes facilitate the operation.

DR. VAN S. LINDSLEY, Professor of Diseases of the Eye and Ear in the Medical Department Vanderbilt University, at Nashville, died after a painful illness, November 15th ult.

THE TREATMENT OF FROST-BITTEN FINGERS AND TOES.—Dr. Lapatin, in the Proceedings of the Caucasian Medical Society, advises that fingers and toes which have been slightly frost-bitten, and which subsequently suffer from burning, itching, and pricking sensations, should be painted, at first once and afterward twice a day, with a mixture of dilute nitric acid and peppermint water in equal proportions. After this application has been made for three or four days the skin becomes darkened and the epidermis is shed, healthy skin appearing under it. The cure is effected in from ten to fourteen days. The author has found this plan very effectual among soldiers who were unable to wear their boots in consequence of having had frozen feet. They were in this way soon rendered capable of returning to military duty.—*British Medical Journal.*

EPHEMERIS DISCONTINUED.—Dr. Squibb announces the discontinuance of the interesting little series of pamphlets which, for the past few years, he has issued under the name of "An Ephemeris of Materia Medica, Pharmacy, Therapeutics, and Collateral Information."

ERRATA.—In the article by Dr. James Weir in the last issue of the NEWS, second column, ninth line from bottom, page 354, for hydrocephalic read cephalic.

DR. ERNEST FUCHS has been appointed the successor to the late Prof. Jäger, in the chair of ophthalmology in Vienna.

MARINE MEDICAL INTELLIGENCE.

OFFICIAL LIST of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service for the week ended December 5, 1885:

Wyman, Walter, Surgeon, granted leave to attend meeting of American Public Health Association. December 3, 1885. *Benson, J. A.* Passed Assistant Surgeon, granted leave of absence for fifteen days. November 28, 1885. *Armstrong, S. T.*, Passed Assistant Surgeon, granted leave of absence for eight days. November 30, 1885. *Wasdin, Eugene*, Assistant Surgeon, granted leave of absence for thirty days. November 28, 1885. *Watkins, R. B.*, Assistant Surgeon, to proceed to Galveston, Tex., for temporary duty. November 30, 1885.

ARMY MEDICAL INTELLIGENCE.

OFFICIAL LIST of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army, from November 29, 1885, to December 5, 1885:

Major R. S Vickery, Surgeon, U. S. A., relieved from the assignment as acting medical director, Department Col., to date the 16th inst. (S, O. 200, Department Col., November 23, 1885.)

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HYPNOTISM.

Something more than a century ago Anthony Mesmer discovered the method of inducing a somnambulic sleep or trance which, in honor of its author, was called mesmerism. It was at the time a theme of absorbing interest, which gradually died away until about fifty years after, when Dr. Braid, of Manchester, revived it, and by careful experimentation stripped the subject of much of its mystery, and gave it a more scientific turn. For a while the method took the name of braidism, which in many places it still retains.

The procedure adopted by Braid, which is an improvement upon that of Mesmer, is described by him substantially as follows: A bright object is held by the operator about fifteen to eighteen inches in front of the subject, and at such an elevation above the line of vision as shall place the greatest amount of strain on the eyes and eyelids. The subject is directed to maintain a steady, fixed stare at the object for a few seconds. After so short a time as ten or fifteen seconds, some individuals may be intensely affected; and if so, it will be found that on gently elevating the arms and legs, the subject has the dispositlon to retain them in the position in which they may be placed. If this is not the case, the person is to be requested, in a soft tone of voice, to retain the limbs in the extended position, whereupon the pulse will become greatly accelerated, his limbs, in process of time, becoming very rigid and involuntarily fixed.

By slightly prolonging this process Esdaile, of India, was accustomed to produce a state of nervous sleep so profound that surgical operations were done under its influence as easily and as painlessly as if the patient had been under chloroform.

Dr. Braid, however, did not usually proceed beyond the production of a semi-cataleptic state, in which, by directing the attention of the patient to the morbid part, many marvelous instances of relief were accomplished by him. His method possessed many advantages over the faith cure, which is nothing more than the strong excitement of expectant attention in the person desiring to be healed; for by this the mere concentration of the attention exerts a remarkable influence when skillfully directed, exalting the action of some parts and lowering that of others.

Notwithstanding these remarkable manifestations and interesting results, the method again fell into neglect; probably on account of its having been taken up by quacks and charlatans, who brought it into reproach.

All along the method known by the name of hypnotism has received more or less attention in France, and now, under the lead of Charcot and others, there is fair prospect that through scientific methods it will be made to yield whatever there is in it of worth and usefulness.

The fundamental phenomena, such as sleep, narrowing of the field of consciousness, blotting out of memory, insensibility, or hyperesthesia, modifications of neuromuscular irritability, hallucination in obediance to suggestion and the like, have become too familiar, even to the general public, to excite any longer much of interest. The attention of investigators is now

directed more exclusively to the curiosities of the hypnotic state, to the rare phenomena manifested by the individual subjects, and from which most may be hoped for in the way of light thrown upon what, after all, is a great mystery.

Among the most interesting novelties are the post-hypnotic impulsions, which may take place weeks or even months after the individual has been hypnotized, in obedience to suggestions made during the trance, of which suggestions themselves nothing is remembered, the subject usually assigning for the act which he finds himself irresistibly driven to perform, some pretext trumped up at the moment.

The malign power which this gives to any unscrupulous operator is obvious, in case he should be disposed to use his subjects as cats'-paws in the commission of crime. It has been suggested that in case the subject mistrusts the operator, he should have himself hypnotized by some other person who might free him from the evil suggestions. This might work well enough if the suggestions manifested themselves between dates so that they could be suspected and thwarted.

The inhibition of certain processes by negative suggestion is among the greatest curiosities of hypnotism, and bids fair to open up the way to important psychological secrets by isolating phenomena which usually are found combined. A patient may be made blind or deaf to special objects and to nothing else, just as he may be made blind of one eye, deaf of one ear, or insensible to pain in one part of the body, and all by verbal suggestion that he shall become so.

The distinction that psychology makes between the mere sensation and the mental translation or assimilation of it, so as to form a percept, is beautifully brought out in these experiments. It seems that in them blindness or other peculiarity is not the lack of sensation, but the failure to interpret the sensation. A patient, for instance, made to look at a red wafer on a sheet of paper, but told there is nothing there, will not see the wafer, will say that the entire field of view is white. As soon, however, as the wafer is blown away, he will say that he sees a green spot, its negative after-image. Likewise, a patient made blind to a particular bystander can not be made to see him. In some way, however, he must discern the person so singled out, some sort of a sensation of him must be there, or he could not be singled out for invisibility.

The hemi-hypnotic phenomena exhibit the results of a moral vivisection, as it were, of the patient. One side of the body may be cataleptic or lethargic, the other awake; one side of the face may be made to laugh, the other to weep.

If a cataleptic subject is set to knitting, and the operator closes one of her eyes, the hand on the corresponding side falls inert, and the other continues all alone to perform the knitting movements. If a magnet is brought to the side of the patient opposite the one in which unilateral movements are being made, and that even without the patient's knowledge, the movements will be transferred to the other side.

But the most remarkable phenomena yet observed were related at the last meeting at Grenoble of the French Association for the Advancement of Science, by MM. H. Borru and P. Burot, of Rochefort, attachés of the School of Naval Medicine of that city, and vouched for as entirely trustworthy by the *Revue Bibliographique Universelle.*

When these patients were hypnotized a closed vial of jaborandi, held near one of them without his knowledge, would produce profuse sweating; in the same way ipecac, apomorphine, and other emetics produced vomiting; chloral and opium, sleep; scammony and other drugs of the class, purging; and alcohol a state resembling intoxication. These phenomena were further illustrated in another case. Dr. Mabille, of La Rochelle, had a hystero-epileptic subject whom he mesmerized one evening, saying that at a certain moment he would bleed from the nose. At the hour specified the epistaxis occurred. In later experiments

stigmata were brought out on the arm by "ante-suggestion."

Hypnotism it seems, therefore, offers a wide field for scientific investigation, and an extended range of therapeutic possibilities.

Bibliography.

A Complete Pronouncing Dictionary; embracing the Terminology of Medicine and Kindred Sciences, with their Signification, Etymology, and Pronunciation, with an appendix, comprising an explanation of the Latin terms and phrases occurring in Medicine, Anatomy, Pharmacy, etc.; together with the necessary directions for writing Latin prescriptions, etc. By JOSEPH THOMAS, M. D., LL. D,, author of the System of Pronunciation in Lippincott's "Pronouncing Gazetteer of the World," etc.; on the basis of Thomas's Comprehensive Pronouncing Medical Dictionary. 8vo, pp. 844; cloth. Philadelphia: J. B. Lippincott & Co. 1886.

The appearance of a new medical dictionary is to be looked upon at any time as an important event in science; but the volume under notice will doubtless be accorded the honor of marking an epoch in medical teaching and conversation. The profession has had for many years, in Dunglison, a repository of medical etymological learning, admirable in its way and rich beyond successful rivalry, but wanting in the all-important department of pronunciation.

It is to be regretted that this great scholar, whose work has been for so long and still is the authoritative standard for the definition of medical terms, failed to fix the standard for their proper pronunciation. In consequence of this failure medical terms have been uttered according to the learning, taste, or fancy of our teachers, with results which are too painfully apparent on every hand. A work to which the bewildered student or practitioner can turn for a fixed mode of pronunciation with words which are spoken on every hand with accents and sounds that violate every known law of orthoëpy is, to say the least, refreshing.

The author's scheme of pronunciation is in the main admirable, and in accord in most points with the teaching of the best scholars; but before it is made the standard in our colleges, it is to be hoped that the slight which he puts upon the Greek double consonants, *φθ* in *phthisis*, when he pronounces it *tisis*, will be atoned for, and his undue fondness for softening the *γ* at the beginning of words (as in *gynecology*) abated; but since the latter error is committed at Oxford, the author may be forgiven for falling into it.

In the matter of definition the author is usually happy and sufficiently explicit. He does not pretend to do more than may be legitimately asked of the dictionary-maker, and they who go to his book for encyclopedic lore will be disappointed.

In the appendix may be found a fund of useful information upon medicine and kindred topics, such as a statement of the metric system of weights and measures, full directions for the correct writing of Latin prescriptions, a table of the order and classes of living mammalia, posological tables, chemical symbols, etc.

The work is issued in the best style of its famous publishers.

Leonard's Physician's Pocket Day-Book. In Red Morocco Binding, with Flap, Pocket and Pencil Loop. Price, postpaid. $1.00. Published Annually by the Illustated Medical Journal Co., Detroit, Mich.

This popular day-book is now in its ninth year of publication. It is good for *thirteen* months, the record beginning with the first of any month, and accommodates daily charges for fifty patients, besides having a cash department and complete obstetric records. There are also columns for the diagnosis of the case, or for brief record of the treatment adopted, following each name space. The name of patient needs to be written but three times in a month. The book is seven and one half inches in length, and is three and one half inches wide, so that it will carry bill-heads or currency bills without folding. It is bound in flexible covers, and weighs but five ounces, being easily carried in the pocket. A copy of the Illustrated Medical Journal for one year, or of the paper edition of Leonard's Dose-book, will be sent free on all orders sent to the publishers, as above named.

Annual Report of the Surgeon-General, United States Army. 1885.

In times of peace the annual report of the chief medical officer of the army is necessarily a modest publication, but the work under notice bears abundant testimony to the efficiency of the army medical

service, and contains many valuable suggestions for the use of those who have the care of men in camp.

The work is an octavo of ninety-three pages, to which is appended eight charts, illustrative of the prevalence of enteric fever, typho-malarial fever, malarial fever, diarrheal diseases, rheumatism, pneumonia, bronchitis, and catarrhs, during the months of the year 1884, and the preceding decade.

Though the work is especially designed for the instruction of the army medical corps, its pages will be sought by the hygienist and statistician for valuable information not otherwise accessible.

Some of the Causes of Failure in Operation for the Correction of Squint. Read before the Kentucky state Medical Society, June 25, 1885. By Dudley S. Reynolds, M.D., Professor of General Pathology and Diseases of the Eye and Ear in the Hospital College of Medicine, Louisville. Reprint. Philadelphia Medical Times.

Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The good example set by the late Dr. Wm. Farr, for many years chief of the statistical department of the General Registry Office, of preparing a decennial report, embracing the returns of mortality for the whole of each period, has been continued by Dr. William Ogle, Dr. Farr's successor. The report shows that, although the mean annual death-rate for England and Wales during the decennium 1871–80 has fallen to 21.27 per thousand, or lower than that of any previous like period since civil registration began, yet, that the advantages hence arising have been unequally shared among different classes of the population. The male death rate has fallen by 4.24 per cent, and that of females by 6.02 per cent, since the immediate preceding decennium. The gain, moreover, has been rather in the earlier than in the later periods of life, during which the rates show a positive increase, but with the difference, that while the male death-rate was higher than in the previous decennium at each period after thirty-five years of age, that for females did not show an increase till after forty-five years of age.

In considering the causes of the general diminution of mortality, and also of the inequality of the results at different ages, Dr. Ogle is of opinion that much must be laid to the credit of the various proceedings which may be comprehensively described as sanitary reform, and he thinks it possible that such reform, by removing or diminishing sources of disease which press heavily on the young, may promote the survival of a certain number of comparatively weakly persons, who, after all, by not attaining old age, tend to increase the death-rates of the later period of life. Against this consideration, however, he urges that the effect of sanitation would also be to preserve the health of many children who might otherwise not have been killed but more or less crippled by disease, and who might have been expected to attain adult age, but not longevity. Assuming these two modes of operation to some extent to balance each other, there remain as causes of adult mortality the intensity of the struggle for existence in the present day, and also the effects of the ever increasing tendency of the adult rural population to migrate into towns in which the mortality is always higher.

A diminished death-rate in the earlier and an increased death-rate in the later periods of life might at first sight occasion doubt as to the extent to which the community would derive benefit from the change, as to the extent, that is, to which the saved life would fall into useful and productive as distinguished from useless and dependent periods. To this question the tables contained in the report furnish an entirely satisfactory answer, and they are summarized by Dr. Ogle with remarkable clearness. He forms from them new life-tables for males and females separately, which start with the assumption of a million of births. The tables then show how many of the million, according to the death-rates of the decennium 1871–80 would be surviving at each year of life, and what would be the average expectation of life of the survivors. According to the old table, 1838–1854, one half of the million males would have died before the end of the forty-fifth year, and one half of the million females before the end of the forty-seventh year. According to the new table, one half of the males would not have died until after the end of the forty-seventh year, and one half of the females would be surviving at the end of the fifty-second year. The male survivors at the end of every year, by the new table,

exceed the survivors of the same age by the old table at every age up to the sixty-seventh year, at the end of which the survivors, by the new table, would be 267,829, and the survivors by the old table would be 267,160. After this there is a change, and the survivors at the end of each subsequent year are more numerous by the old than by the new table. With regard to females, it is not until almost the very end of life that the survivors by the new table become fewer than by the old, for even at the end of the ninety-second year of life there are as many survivors by the new as by the old table, notwithstanding that the female death-rate has increased after the 45–55 years period. A female born in 1871–80 has a better chance of living to be niety-two than one born in 1838–54, but a slightly less chance of living longer than that. On the other hand, a male born during 1871–80 would have a better chance of living sixty-seven years. His chance of living to complete ninety years would be fully one-ninth less than in the earlier period, or more precisely, would be as 8.015 to 9.321. But the mere fact that the male death-rate has increased after the 25–35 period of life must not be interpreted to imply, as might be hastily assumed, that the number of males surviving out of a given number will be less after that age; for, as has been shown, the contrary is the case up to the sixty-seventh year; the explanation being that the death-rates before the 34–45 period of life have gone down so greatly since 1838–54, and the survivors of the end of the forty-fifth year are so much more numerous than they were under the older rates, that they can support the higher mortality of after years for a considerable period, and yet retain their numerical superiority.

The association for supplying medical assistance to the female natives of India is rapidly preparing to set to work in earnest. The plan of the association, as directed to this object is fourfold. First, they seek to attract to India women doctors who have received a first-rate medical education. Secondly, for the purpose of attracting them, they propose to form a guarantee fund which should secure to them a moderate subsistence for a term of years. Their next object is to erect hospitals for the reception of women, worked by a staff of female doctors and nurses, and dispensaries for the relief of women and children conducted under the same conditions. Lastly, they seek to establish scholarships for the encouragement of female medical students of smaller pecuniary value, if the students study in India, and of larger, if they study in England. Lord Hobhouse says the qualifications necessary for a woman to undertake successfully such work in India must be "good abilities, good health, a thorough education, and an unusual amount of zeal and enterprise, courage and self-denial, to enable them to live poorly-paid lives of great labor." The beginnings of medical practice for female doctors in India will no doubt be arduous and ill-paid, as they are every where, but there can be no doubt that the prize of a great fortune lies open to the women who are first in the field of enterprise, and who bring resolution and industry as well as ability to the work.

An excellent through service to the various health resorts in the south of France has commenced twice daily from Victoria Station, at 8 o'clock A. M. and 8 o'clock P. M. There is now no fumigation or other restriction placed upon passengers traveling south.

LONDON, November, 1885.

INTERNATIONAL CONGRESS.

SPECIAL ANNOUNCEMENT.—The Executive Committee of the Ninth International Medical Congress, to be held in the city of Washington, D.C., commencing on the first Monday in September, 1887, having accepted, under Rule 10 of the Committee on Preliminary Organization, the charge of the business of the Congress, hereby give notice to the members of the medical profession that they have been actively engaged upon, and have now nearly completed the arrangements for this meeting; and they anticipate the hearty co-operation of the profession every where in developing this great scientific and humanitarian assembly.

By order of the Executive Committee.

HENRY H. SMITH, M.D., Philadelphia,
Chairman of Executive Committee.

NATHAN S. DAVIS, M.D., LL.D.,
Secretary-Gen'l of Ninth Int. Med. Congress.

ANTIPYRINE.—M. Dumolard gives preference to the following formula: Antipyrine, 20 parts; Jamaica rum, 30 parts; syrup and water, each, 150 parts. In typhoid fever he gives a teaspoonful three times a day.—*New York Medical Journal.*

Selections.

MODIFIED FORM OF TYPHOID FEVER.—After describing an epidemic of a modified form of typhoid fever that occurred in Victoria, B. C., Dr. G. L. Milne thus concludes his article in the Canadian Practitioner:

1. The peculiar mode of attack in this epidemic, the temperature being the highest on the second or third day of fever, and beginning to decline about the tenth day, with mild enteric symptoms and low mortality.

2. Although the sanitary condition of the city was unfavorable, the typhoid poison did not seem to cause a virulent form of typhoid fever.

3. The epidemic referred to was similar to the continued malaria of some writers who live in malarial districts; but as for this city and district, the presence of malaria must be dispelled.

4. That the so-called typho-malarial and continued malarial fevers are misnomers, as in the presence of the typhoid poison malaria ceases to exist, and the continued malaria of some writers are no doubt cases of modified typhoid fever, as quinia, even in large doses, has no control over the fever, nor does it seem to check its progress.

5. That epidemics of modified typhoid fever occur in all parts of the continent—the Atlantic coast and Middle States—where malaria exists, and also on the Pacific coast where malaria is unknown. Taking the subject in a topographical and geographical point of view, the study of typhoid fever in a modified form is of the utmost importance, especially as to treatment.

6. That the treatment of all continued fevers should be conducted just as if true typhoid existed, no matter how modified the symptoms may appear. The death-rate under these circumstances would be very much reduced.—*Medical and Surgical Reporter.*

THE TREATMENT OF CHOREA.—In a paper on this subject, presented to the Harveian Society, of London, Dr. W. B. Cheadle, after referring to the failure of innumerable specifics, and to the skepticism too widely engendered therefrom, declared his own belief in the value of medicinal treatment. Speaking from the careful notes of one hundred and sixty cases observed during a period of eight years, he stated that the average duration of the disease under treatment had been five weeks (the extremes being ten weeks and four days); whereas cases without treatment might extend from eleven to fifty-two weeks, or indefinitely. The author had tried various methods, including rest and expectancy, with results sometimes beneficial, but never completely successful. In arsenic, he had at last found an agent which did succeed. Todd, as long as forty years ago, had recognized its power; so had Babington and Begbie; but dread of the poison had checked their use of the remedy. Dr. Cheadle proceeded to narrate some striking cases of rapid improvement under the influence of ordinary doses of liquor arsenicalis, with small doses of tincture of perchloride of iron. A comparison of long series of cases treated without arsenic and with arsenic respectively, gave for the former an average duration of forty days, for the latter, twenty-nine days; and this difference was increased when the last fifty-eight cases were compared with fifty-eight consecutive cases in the former series, the average duration under arsenic being only twenty-four days. Arsenic was in every case well borne, excepting a remarkable result repeatedly observed by the author, but not hitherto described by others; viz., a bronzing of the skin analogous to that observed in Addison's disease. The staining was most masked in the flexures, did not affect the face, and ultimately disappeared. In one case, however, it had become permanent, but would probably vanish in time. The pigment deposited was not metallic, as in discoloration by silver, but resembled the pigmentation due to chronic congestion. In conclusion, while advocating arsenic in chorea, the author did not wish to depreciate the value of other therapeutic agents, which should be employed concurrently.

COCAINE-POISONING FROM AN UNUSUALLY SMALL DOSE.—Dr. T. H. Burchard gives in the Medical Record the following interesting case, which may serve to call the attention of the profession to the possible dangers incidental to the hypodermic injection of cocaine:

I was recently called to remove a needle from the sole of the foot of a young man whose personal characteristics doubtless had much to do in precipitating a condition of things that were well-nigh fatal. He was a tall, "white-livered" youth of twenty-two years, standing six feet two inches, and

weighing one hundred and twenty pounds. He was remarkably white — complexion, eyes, hair, etc. To deaden sensibility, I injected beneath the skin, close to the needle, *ten drops* of a four-per-cent solution hydrate of cocaine. In about four minutes my patient suddenly clutched his throat, exclaiming, "I am dying," and fell from his bed unconscious. Respiration ceased, his jaw dropped, his eyes rolled upward, and to all appearances he was dead. His heart was beating very faintly, although his radial pulse was imperceptible. Although startled at this unlooked-for state of affairs, I began artificial respiration at once, and injected, in the absence of any thing better, several hypodermics of an aromatic smelling-salts that chanced to be in the room. Later I injected, in two doses, a twelfth of a grain of sulphate of atropia. In addition to a sinapism over the heart, hot bottles and alcoholics, etc., were employed. Fifteen minutes after the catastrophe his pulse was about forty-eight; very feeble; respirations seven to eight; pupils *contracted*. Unconsciousness continued about twenty minutes. Afterward he convalesced nicely. Inferences from the above are obvious.

THE SYMPTOMS OF ACUTE NEPHRITIS IN CHILDREN.—In an interesting article on this subject, in the Archives of Pediatrics, November, 1885, Dr. W. H. Porter says:

The symptoms depend largely upon the cause of the renal lesion, and naturally vary with them. When the patient is attacked with acute diffuse nephritis, and the cause is believed to be duè to exposure to cold, or perhaps can not be discovered, it will be found that the disease usually begins with a chill, followed by fever, pain in the back and region of the bladder, difficult and frequent micturition, and a very much diminished quantity of urine. Such cases may be divided into groups according to severity.

a. In very acute cases these symptoms are rapidly followed by signs of uremic poisoning, convulsions, coma, and death, which ensues in from twenty-four to thirty-six hours after the appearance of the disease.

b. In subacute cases edema of the inferior eyelids and feet appear in a day or two after the invasion, followed by general anasarca, while dropsy, abundant or otherwise, may make its appearance. The cephalic symptoms are those of the milder type of renal affections, consisting chiefly of pain in the head, drowsiness, and stupid feelings, but delirium rarely appears; after a few days or weeks the intensity of the symptoms abate, and the child is apparently cured, although some albumen and a few casts may persist, and be found in the urine for six months or a year afterward.

c. In still other cases of a milder type edema and dropsy are the first symptoms that present themselves. There may be be some nausea, slight pain in the back and in the region of the bladder, and dimness of the vision. These symptoms are followed after a short time by a waxy pallor and a very anemic condition, the nausea giving place to violent and often persistent vomiting. The child is much bloated from the increasing anasarca and dropsy, and may become "water-logged." Drowsiness and stupor are often quite marked. In these cases the sight may be impaired from a retinitis, or inflammation of the optic nerve. These symptoms, however, gradually disappear, although as in the former class, the albumen and casts persist in the urine for a considerable time.

d. When the acute diffuse nephritis appears as a sequela to scarlet fever, it usually develops on the fourteenth, the twentieth, the twenty-first, or the twenty-second day; that is, from the second or third week after the invasion of the scarlatina. This is the time when desquamation is most active, the skin very sensitive, and the patient restless from confinement. They slip from a warm to a cold room, or a window is left open, and the child is exposed to a sudden and cold current of air. In this way, almost unnoticed, the surface is unexpectedly chilled, the physiological processes at once interrupted, more work is precipitated upon the already weakened kidneys, and the nephritis set in motion; suddenly, apparently without cause, the increased temperature returns; headache, drowsiness, and stupor make their appearances, the skin becomes dusky, and the diagnostic waxy pallor of nephritic disease is developed. There is myalgia, edema of the face and extremities, followed shortly by general and extensive anasarca, abundant dropsy of the large cavities and great dyspnea. In the worst cases the urine is suppressed, and convulsions, coma, and death rapidly ensue.

POST-MORTEM ALBUMINURIA. — It has been found by MM. Vibert and Ogier that the urine drawn from the bladder of a cadaver is almost invariably albuminous, even when there was no lesion discoverable in

any part of the urogenital apparatus. It was noticed in their experiments, also, that the longer the time was since death had occurred, and the less urine there was in the bladder, the greater was the proportion of albumen contained in it. The source of the albumen in these cases was shown to be the mucous membrane of the bladder, for when the bladder was removed from the cadaver, emptied of its contents and washed, and then filled with distilled water, this fluid was found in a short time to become markedly albuminous.

This is a point well worth bearing in mind in the examination of the bodies of those who have died suddenly. For the mere fact of there being albuminous urine in the bladder would be insufficient to base a diagnosis of renal disease upon, and should not be given great weight unless corroborative pathological changes were also found in the kidneys.—*Medical Record.*

THE SURGERY OF SCROFULOUS GLANDS.—Dr. T. P. Teale in a course of clinical lectures on the subject (Medical Times), delivered at the Leeds Infirmary, summarizes his experience of the last seven years in the operative treatment of scrofulous glands. In regard to the surgical treatment he lays down the following principles:

1. Surgery can bring about in a few weeks the healing of gland cavities and sinuses, though of years' duration, and of wounds resulting from the removal of caseous and suppurating glands.

2. In dealing with sinuses, gland abscesses, and broken-down glands, the treatment must be vigorous and thorough.

3. The visible abscess, often called and treated as a strumous gland, is, as a rule, merely a subcutaneous reservoir of pus, the gland from which it comes being *not subcutaneous* but *subfascial*—sometimes even submuscular—the communication between the two being often only large enough to admit a small probe or director.

4. It is futile simply to puncture such an abscess without removing the gland deeper seated.

5. When a damaged gland is removed before the overlying skin is thinned by suppuration, the resulting scar is slight.

6. When depressed cicatrices resulted, there had been, in almost every instance, long-standing sinuses present.

7. In dealing with a sinus, the channel should be enlarged by a knife or "Bigelow's sinus dilator," and the whole of its granulating surface scraped off. When a shallow sinus is covered by thin blue skin, this should be rasped away by the scraper, and any overhanging cutaneous edges are to be trimmed off with scissors.

8. In dealing with an abscess, the surgeon should in no instance rest content until he has discovered and eradicated the gland, always remembering that if it be not obvious, there is sure to be a small track leading through the deep fascia to the missing gland; this should be enlarged to admit the spoon of the scraper.

9. When the gland has not suppurated, and is moveable, it can be removed with very little dissection, almost by enucleation, and the resulting scar is insignificant.

10. When a gland has suppurated, and generally when it has become caseous, the capsule should be freely opened and the contents eviscerated by Lister's scraper. This is sometimes quite difficult, the tough lining stump being closely adherent to the capsule. This remnant should be dissected away, even at the risk of injuring other structures.

11. Sometimes, after such evisceration, the finger detects the bulging wall of a contiguous gland. This should be opened and removed through the wall of the cavity. Thus three or four may be removed through one external opening, when in close contact and broken down or suppurating.

12. The cavity, after removal, should be well cleansed by a carbolic-acid solution (1-40), and then charged with iodoform. A rubber drain, reaching to the farthest recess, is fixed to one extremity of the wound, the edges of this being carefully brought together by fine catgut sutures. The whole is covered by an antiseptic absorbent dressing. The tube should be removed in a week. It is rarely necessary to remove it. Should a further drain be necessary, one of gilt wire should be inserted, which should remain until all is healed except the track of the tube.

Of the various scrapers used, Dr. Teale prefers that devised by Lister, the cup of which is oval, almost circular, and the handle long and having a double curve. Bigelow's "sinus dilator," which works on the principle of an ordinary glove-stretcher, he finds a valuable instrument in these cases.

HABITUAL ABORTION AND KIDNEY DISEASE.—Much has recently been written on albuminuria in pregnancy, and on the relation of disease of the kidney to physiolog-

ical and morbid enlargement of the uterus. At the recent meeting of German scientists and medical men at Strasburg, Dr. Fehling, of Stuttgart, read a memoir on habitual death of the embryo in kidney disease. In the first case under his observation, premature expulsion of a dead fetus occurred six times, and there was no evidence of syphilis. At every pregnancy, anasarca, albuminuria, and death of the fetus, with severe cramp of the abdominal muscles, occurred between the fifth and sixth month; the dead fetus was expelled from three to ten weeks later. In the second case, similar symptoms appeared in a young unipara; the fetus died, and thereupon the albuminuria abated. In the third case, the the patient had borne two healthy children. During her third pregnancy, albuminuria and characteristic changes in the retina occurred; and, during the fourth, she was seized with hemiplegia; in both, a decomposed fetus was expelled at the fifth month, with subsequent decrease of the albuminuria. In the fourth case, the patient, in her first pregnancy, aborted at the fifth month; then she gave birth at term to a recently dead child. In the third pregnancy, great edema and albuminuria supervened, the child was still-born, and the mother died of uremia. Dr. Fehling believed that, in all these cases, kidney diseases existed before pregnancy, which aggravated the renal symptoms. Winter had described two cases of premature detachment of the placenta, normally situated, where albuminuria existed. Dr. Fehling found atrophy of the villi of the chorion, with wedge-shaped or spherical infarcts in the placenta, in his cases, similar to renal infarcts. The infiltration of the chorionic villi and vessels of the umbilical cord with small cells, as seen in syphilis, was absent, nor did any of the embryos exhibit a trace of congenital syphilis.—*British Medical Journal.*

A New Anesthetic.—A year ago Dr. v. Mering mentioned at the meeting of the Natural Scientists, at Eisenach, the hypnotic and anesthetic effects of the acetales. He recommended further trials with a mixture of two volumes dimethylacetale and one volume chloroform. The dimethylacetale has the chemical formula of $C_4H_{10}O_2$, a specific gravity 0.87, reaches the boiling-point at 64°, has an odor resembling fruit, burns with a smoky flame, and is not decomposed by the light. For the last six months experiments have been made with the mixture above described at the Strasburg clinic. The price is at present an objection to its general use, one pound costing about $33. The mixture has very little if any effect upon the heart, the pulse evincing no alteration under its influence. The patient feels remarkably well when awakening, there is no headache or fullness of the head. The skin is not irritated by it, and the urine never contained albumen or sugar after narcosis. With robust men it takes fifteen minutes to cause complete insensibility, but with children and anemic persons the effect is more rapid. After a trial in fifty cases, Dr. F. Fischer, assistant at the clinic, recommended its use in the following cases:

1. In cases where gastric catarrh and vomiting as a consequence of the narcosis ought to be avoided.
2. In cases of laparotomy.
3. Diseases of the heart.
4. Nephritis.
5. Affections of the central nervous system, especially infantile paralysis and epilepsy.
6. When dangerous symptoms develop under narcosis as usually induced, while the operation can be concluded only while the patient is under the influence of an anesthetic.—*Medical and Surgical Reporter.*

Tubercular Meningitis Cured by Iodoform.—A Swedish physician, Dr. Emil Nilsson, alleges that he has cured an undoubted case of tubercular meningitis by frictions on the shaved scalp with iodoform ointment (1 to 10). The patient was a boy, aged eight, whose mother had a family history of phthisis, and four of whose brothers and sisters had died from tubercular meningitis. The symptoms in this child's case were similar to theirs—headache, torpor, convulsions, strabismus, and pyrexia. He was at first treated with calomel and iodide of potassium, but did not improve; and, after having been under treatment a week, became distinctly worse, being unable to take food or medicine. The pallor of the face, which had pre-existed, gave way to flushes of the cheeks. The child threw himself out of bed, and presented severe clonic spasms of the limbs and of the facial muscles. The head was then shaved, and iodoform-ointment rubbed in, an oil-skin cap being put on. The friction was repeated three or four times in the day; and the next day there was a decrease in the convulsive movements, the sleep was calmer,

and the spasmodic contractions, which had previously been excited by the slightest noise, now ceased to be so. Consciousness shortly afterwards returned, and the child's face became of a more natural color. This, however, was accompanied with a severe coryza, redness of the lips, and an irritable cough, the breath smelling strongly of iodoform. The ointment was discontinued, and syrup of iodide of iron given. The unpleasant symptoms rapidly disappeared, and the child was s on running about in good health.—*British Medical Journal.*

A NEW URINARY TEST.—There is often considerable difficulty in making a positive diagnosis in the early stages of typhoid fever. Malarial fevers, acute general tuberculosis, and other febrile conditions may resemble for a time the early stages of typhoid. For this reason the peculiar urinary reaction occurring in typhoid and typhus, to which attention was called by Dr. Dana at a recent meeting of the Practitioner's Society, is of much interest. This test consists in adding to the urine an acidulated solution of sulfanilin acid. The mixture is then made alkaline by the addition of ammonia, and allowed to stand for twenty-four hours, when a greenish-colored deposit of phosphates occurs. This reaction is scarcely ever seen in the urine of healthy or afebrile persons, and very rarely in the urine of febrile cases, except those of typhus, typhoid fever, and measles. Consequently its appearance in the urine may have a strong and important confirmatory value in diagnosis.

Professor Ehrlich, to whom we are indebted for this test, believes also that it has a prognostic significance in certain cases of chronic phthisis and of pneumonia.—*Medical Record.*

TREATMENT OF DIFFERENT VARIETIES OF DIARRHEA.—(*L'Union Méd. du Can.*) In the lienteric form, if the child is still a nursling, it should receive lime-water or *eau de Vals.* The nurse or mother should be warmly clothed, and should receive a portion of a mixture of equal parts of carbonate of lime and calcined magnesia every day, in order to keep the bowels open. If the child is two or three years old, a few drops of the tincture of nux vomica taken in some water, before eating, is thought preferable to bismuth or laudanum, and the food should be simple and readily digestible.

A sero-mucous diarrhea should be first treated by an emetic and a purgative, either given together or within a short time of each other. The child must be warmly clad even in summer, and the food should be limited to milk and lime-water or weak bouillon. Should the diarrhea continue, bismuth may be given, a bath morning and evening, and warm stimulating applications to the abdomen. A little laudanum may also be given from time to time. In the diarrhea which accompanies dentition, the child should be well protected with clothing, and lime-water and bismuth administered. In acute enteritis the same treatment is applicable, and if there is vomiting, Sydenham's laudanum in half-drop doses is recommended for children under one year of age, or one drop for children between one and two. In addition the abdomen should be gently rubbed, and starch-water, weakly impregnated with laudanum, be applied with sponge or cloth. Calomel or nitrate of silver are not favored by the author for this trouble. In choleriform diarrhea the indications are to supply heat, and to stop the abundant and exhausting discharge with astringents, alcohol, and other suitable means. Vomiting may be stopped by the use of small quantities of mashed ice. The surface of the body should be soothed with applications of plain warm water and starch-water. Tincture of canella and brandy may also be given in small doses, the proportion of the two substances being as one to five. In some cases a flying blister at the pit of the stomach will be of service, and chicken soup may be used as nourishment instead of milk. Diarrhea of a dysenteric character calls for essentially the same treatment as the choleriform, but a few drops of per chloride of iron may sometimes be added with advantage to check the hemorrhage. In cases which are complicated with cerebral accidents, it must be remembered that in most cases the primary fault lies in the intestines. Bromide of potassium and calomel will sometimes be useful in such cases, but when there are pains in the head and convulsive movements, laudanum is indicated; or if there is coma and prostration, laudanum and ether. If the discharge is not excessive, bismuth and alcohol may be substituted. In dysentery the author advises large doses of alcohol and injections of boracic acid and water (1 to 100), the surface of the body being washed with a mixture of mucilage-water and bismuth. Small doses of calomel and of Dover's

powder will also be useful to prevent constipation. In diarrhea which is an accompaniment of fever, injections of a weak solution of sulphate of quinine are said to be most advantageous. In the diarrhea which accompanies malarial poisoning and syphilis, mercurial preparations are recommended, Van Swieten's solution being suggested. In diarrhea of fevers in general, especially in dothien-enteritis, a large injection containing a disinfectant of some sort, is recommended morning and evening. The injection may be of plain warm water or of starch-water, to which a few drops of laudanum may be added. Two or three drops of perchloride of iron may also be given in a little water every two or three hours. The child should be moved from one room to another at frequent intervals in order to disinfect and aerate thoroughly the vacated room.—*Archives of Pediatrics.*

DIAGNOSTIC VALUE OF THE WHITE STREAK IN SCARLATINA.—(*Abeille Méd.*) This phenomenon, which can be produced by rubbing a soft body upon the skin which is affected with the scarlatinal eruption, is considered by the author an important diagnostic sign of scarlatina which has hitherto been overlooked. When in the normal condition one draws a line upon the skin with a smooth surface, as the rounded extremity of a pencil, and uses moderate pressure, there may be observed at the points touched a white line which lasts for some time. This paleness is due to the moderate excitation of the vasomotor nerves and the contraction of the small vessels which follows it. If the pressure has been very strong, in place of a white line a red line bordered by two white ones is produced. The excitation in this case has paralyzed, temporarily, the small vessels in place of contracting them, while in the area which is contiguous where the pressure has been less strong the excitation has led only to constriction of the vessels. In certain diseases the effects which are obtained by this procedure vary greatly. Trousseau, for example, has shown that in patients suffering from meningitis a red line is produced by pressure with the greatest ease, and this has been called the meningitic line. It may also be produced in all the diseases which lead to perturbation of function in the nervous system. Thus, it may be produced in many cases of typhoid fever, in erysipelas, variola, rubeola, and the diphtheritic eruptions. But it is not the same in apperance in scarlatina during the entire period of the eruption. In place of getting the red meningitic line, a pale, rather persistent line is produced, which extends plainly to the bottom of the eruption. This fact was long ago noticed by Bouchut, and was considered a valuable sign as a means of diagnosis, both in children and in adults. It is not equally prominent and distinct at all periods of the eruption, Velpeau having observed that it is not produced when the efflorescence of scarlatina is at its highest degree of development. In the diphtheritic eruption, which resembles that of scarlatina accompanied with angina, the excitation of the skin produces a red line and not the white one of scarlatina. This sign is especially valuable in those cases of measles in which the eruption closely resembles that of scarlatina. The same is true in variola, in which other differential signs are often absent. It must be borne in mind that the important feature in making this test is that the white line appears upon the surface which is covered by the eruption.—*Archives of Pediatrics.*

MERCURY AND ALBUMINURIA.—At the congress for internal medicine, held at Wiesbaden in April, 1885 (*L'Abeille Medicale*) Dr. Fürbringer reported that he had found, out of a hundred chosen cases, eight syphilitics with perfectly healthy kidneys who developed albuminuria during mercurial treatment; the maximum of albumen being five per cent.

The internal and external exhibition of the mercury was followed by the same results, which persisted during the whole of the treatment and disappeared some weeks after treatment was stopped.

The alterations in the kidneys were therefore not important, as was proven as well by microscopic examination.

In another series of one hundred cases of syphilis which had not been treated with mercury, or were no longer so treated, and in which the kidneys had been healthy, he was able to establish in twelve per cent an albuminuria consecutive to the syphilis.

This in every case was discovered in the stage of the roseola eruption. Here the urine contained formed cylinders, which pointed to a light nephritis. This form of albuminuria gave way to mercurial treatment. Therefore he argues that the existence of albuminuria is not a contra-indication to mercurial treatment, which, on the contrary, should be prescribed as a necessity.—*Journal Cut. and Ven. Diseases.*